

# **Extraflame**®

Riscaldamento a Pellet



**PELLET BOILERS USER MANUAL**

**HP 15 - 22 - 30**



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## SPECIFICATIONS

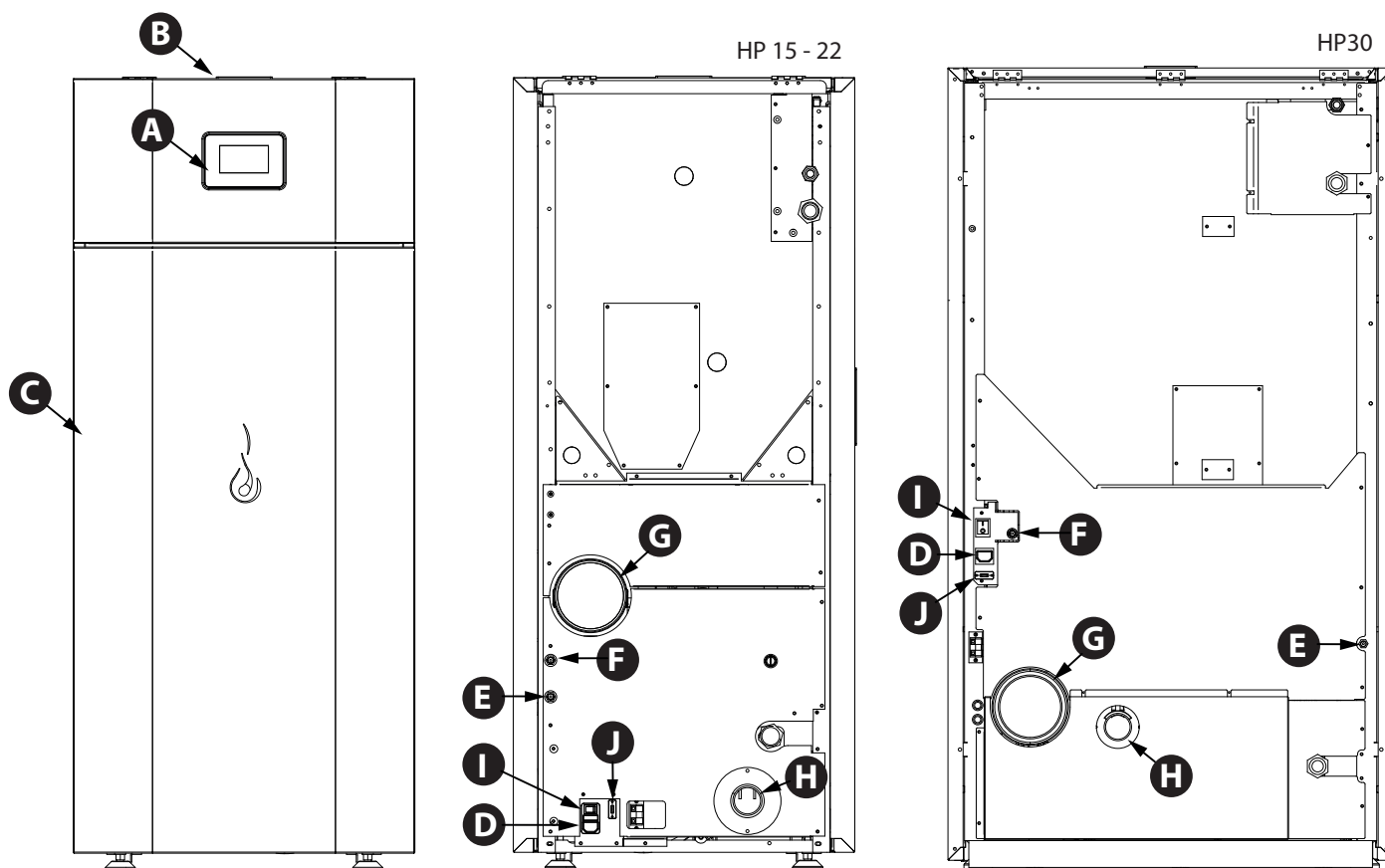
| FEATURES                                     |      | HP 15    | HP 22  | HP 30  |
|----------------------------------------------|------|----------|--------|--------|
| Weight                                       | kg   | 256      | 260    | 335    |
| Height                                       | mm   | 1304     | 1304   | 1408   |
| Width                                        | mm   | 560      | 560    | 780    |
| Depth                                        | mm   | 685      | 785    | 775    |
| Exhaust tube diameter                        | mm   | 120      | 120    | 120    |
| Air intake tube diameter                     | mm   | 50       | 50     | 60     |
| Max global thermal power                     | kW   | 16.9     | 25     | 33.9   |
| Rated output thermal power (made with water) | kW   | 15.2     | 22.5   | 31     |
| Min global thermal power                     | kW   | 5        | 7.4    | 9.5    |
| Min thermal power output                     | kW   | 4.4      | 6.6    | 8.6    |
| Max hourly fuel consumption                  | kg/h | 3.5      | 5.2    | 7      |
| Min hourly fuel consumption                  | kg/h | 1        | 1.5    | 2      |
| Pellet tank capacity                         | kg   | 43       | 60     | 71     |
| Recommended chimney draught                  | Pa   | 0,5 ÷ 10 | 1 ÷ 10 | 1 ÷ 10 |
| Rated electric power                         | W    | 450      | 450    | 450    |
| Electric power to Q <sub>MIN</sub>           | W    | 100      | 100    | 110    |
| Electric power to Q <sub>N</sub>             | W    | 120      | 120    | 130    |
| Stand By power                               | W    | 3.5      | 4.0    | 4.0    |
| Rated voltage                                | Vac  | 230      | 230    | 230    |
| Rated frequency                              | Hz   | 50       | 50     | 50     |
| Water inlet / outlet tube diameter           | "    | 1        | 1      | 1      |
| Automatic exhaust tube diameter              | "    | 1/2      | 1/2    | 1/2    |
| Pump head rating                             | m    | 6        | 6      | 6      |
| Maximum operating water pressure allowed     | bar  | 2.5      | 2.5    | 2.5    |
| Min operating water pressure allowed         | bar  | 0.6      | 0.6    | 0.6    |
| Flue gas temperature at reduced power        | °C   | 56.5     | 62.7   | 63     |
| Flue gas temperature at rated power          | °C   | 103      | 136    | 122    |
| Flue gas <u>reduced power</u>                | kg/s | 0.0055   | 0.0065 | 0.0081 |
| Flue gas <u>rated power</u>                  | kg/s | 0.0128   | 0.0164 | 0.0194 |
| Class of the boiler                          |      | 5        | 5      | 5      |
| Combustion period                            | h    | 12       | 12     | 10     |
| Water supply control valve                   | °C   | 65-80    | 65-80  | 65-80  |
| Minimum return water temperature             | °C   | 55       | 55     | 55     |
| Efficiency at rated power                    | %    | >90      | >90    | 91.4   |
| Noise*                                       | dB   | 40       | 40     | 40     |

\* Value measured in an anechoic chamber with a device operating at rated power.

| HP 15                          |                  | WATER FLOW<br>(kg/h) | WATER SIDE<br>RESISTANCE<br>(Pa) |
|--------------------------------|------------------|----------------------|----------------------------------|
| Temperature jump corresponding | $\Delta T = 10K$ | 1312                 | 160                              |
|                                | $\Delta T = 20K$ | 656                  | 40                               |
| HP 22                          |                  | WATER FLOW<br>(kg/h) | WATER SIDE<br>RESISTANCE<br>(Pa) |
| Temperature jump corresponding | $\Delta T = 10K$ | 1938                 | 367                              |
|                                | $\Delta T = 20K$ | 969                  | 92                               |
| HP 30                          |                  | WATER FLOW<br>(kg/h) | WATER SIDE<br>RESISTANCE<br>(Pa) |
| Temperature jump corresponding | $\Delta T = 10K$ | 2668                 | 687                              |
|                                | $\Delta T = 20K$ | 1334                 | 172                              |

## IDENTIFICATION OF COMPONENTS

|          |                                        |
|----------|----------------------------------------|
| <b>A</b> | Display                                |
| <b>B</b> | Pellet tank cover                      |
| <b>C</b> | Door                                   |
| <b>D</b> | Power socket for electric cable        |
| <b>E</b> | Safety thermostat (manual reset) 100°C |
| <b>F</b> | Safety thermostat (manual reset) 85°C  |
| <b>G</b> | Combustion flue pipe                   |
| <b>H</b> | Air intake tube for combustion         |
| <b>I</b> | Main power switch                      |
| <b>J</b> | Serial port                            |



## INTRODUCTION

The boilers produced in our factory are built with attention to the individual components so as to protect both the user and the installer from any accidents. It is therefore recommended that after any intervention on the product, the authorised staff pay particular attention to the electric connections, especially the stripped parts of the wires. These must not escape from the terminal board in any situation, thus preventing possible contact with the live parts of the wire.

The instruction manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to other owners or user or is transferred to another place. If it is damaged or lost, request another copy from the area technician.

This generator must be intended for the use it has been specifically made for. The manufacturer is exempted from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

## INSTALLATION

Installation of the generator and auxiliary equipment in relation to the heating system must comply with all current Standards and Regulations and to those envisioned by the law. Installation must be carried out by authorised staff, who must provide the buyer with a declaration of conformity for the system and will assume full responsibility for final installation and as a consequence the correct functioning of the installed product.

It is necessary to bear in mind all laws and national, regional, provincial and town council Standards present in the country the appliance has been installed.

The Manufacturer cannot be held responsible for the failure to comply with such precautions. It is recommended to wash all the pipes of the system well before installation to remove any residue that could compromise the correct operation of the appliance. During installation, inform the user regarding:

- a. If water leaks, he must close the water supply and promptly inform the after-sales technical service.
- b. The system working pressure must be checked periodically. If the generator is not used for a long period of time, it is recommended to contact the after-sales technical service to carry out at least the following operations:

- Set the master switch to position 0.
- Close the water taps of both the heating system and the domestic hot water system.
- Empty the heating system and the domestic hot water system if there is risk of freezing.

## COMMISSIONING

After removing the packaging, ensure that the content is intact and complete.

Otherwise, contact the dealer where the appliance was purchased.

When commissioning the product, verify that all safety and control devices the generator consists of work properly. All electrical components that make up the generator must be replaced with original spare parts exclusively by an authorised technical assistance centre, thereby guaranteeing correct operation.

Before leaving the system, the staff in charge of commissioning must monitor the operation of the generator for at least one complete work cycle. The generator must be serviced at least once a year, programming it in advance with the technical assistance centre

## STANDARDS

The boilers have been designed and realised in compliance with the following Directives:

- ♦ UNI EN 303-5 Boilers for central heating. Boilers for solid fuel, with manual and automatic feeding, with a nominal heat output of up to 500 kW

## DIRECTIVES

- ♦ 2004/108/EC: EMC directive
- ♦ 2006/95/EC: Low voltage directive
- ♦ 2006/42/EC: Machinery directive
- ♦ 2011/65/EU: RoHS 2" directive

## FOR SAFETY

- ♦ It is forbidden for the generator to be used by children or unassisted disabled persons.
- ♦ Do not touch the generator when you are barefoot or when parts of the body are wet or humid.
- ♦ The safety and adjustment devices must not be modified without the authorisation or indications of the manufacturer.
- ♦ Do not pull, disconnect, twist electric cables leaving the generator, even if disconnected from the electric power supply mains.
- ♦ Do not close or reduce the dimensions of the airing vents in the place of installation.
- ♦ The airing vents are indispensable for correct combustion.

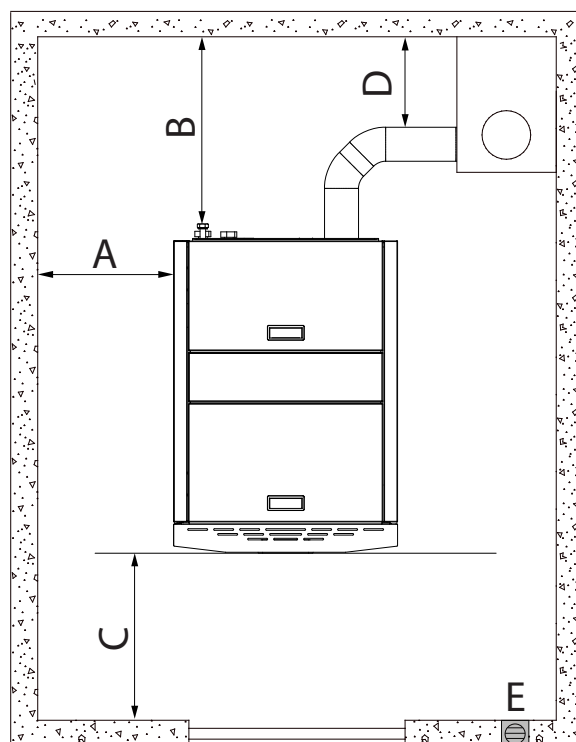
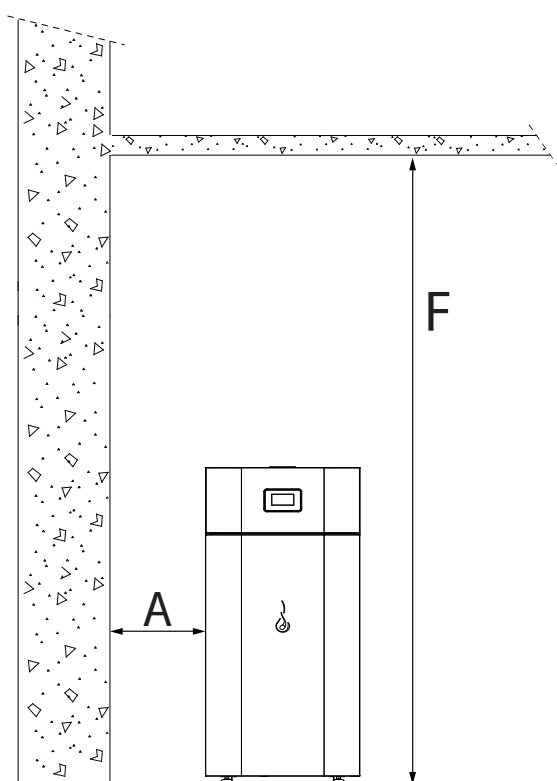
- Do not leave the packaging elements within reach of children or unassisted disabled persons.
- The hearth door must always be closed during normal functioning of the product.
- Avoid direct contact with parts of the appliance that tend to heat up during functioning.
- Check for the presence of any obstructions before switching the appliance on following a prolonged standstill period.
- The generator has been designed to function in any climatic condition. In particularly adverse conditions (strong wind, freezing) safety systems may intervene to switch the generator off.
- If this occurs, contact the technical after-sales service and always disable the safety system.
- If the flue should catch fire, be equipped with suitable systems for suffocating the flames or request help from the fire service.
- If the generator should block, indicated by a signal on the display and that is not relative to lack of routine maintenance, contact the technical after-sales centre.



**THESE BOILERS MUST BE USED TO HEAT WATER TO A TEMPERATURE THAT DOES NOT EXCEED BOILING POINT IN THE CONDITIONS OF INSTALLATION.**

## RECOMMENDED DISTANCES FOR THE BOILER COMPARTMENT

Below are a few images relative to the minimum distances required in the boiler room.  
The company recommends the following measurements to be complied with:



| REFERENCES | NON-INFLAMMABLE OBJECTS | REFERENCES | NON-INFLAMMABLE OBJECTS |
|------------|-------------------------|------------|-------------------------|
| <b>A</b>   | 500 mm                  | <b>D</b>   | 300 mm                  |
| <b>B</b>   | 1,000 mm                | <b>E</b>   | > 100 cm <sup>2</sup>   |
| <b>C</b>   | 1,000mm                 | <b>F</b>   | 230cm                   |

*We thank you for having chosen our company; our product is a great heating solution developed from the most advanced technology with top quality machining and modern design, aimed at making you enjoy the fantastic sensation that the heat of a flame gives, in complete safety.*

## WARNINGS

This instructions manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to another owner or user, or if transferred to another place. If it is damaged or lost, request another copy from the area technician. This product is intended for the use for which it has been expressly designed. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

**Installation must be performed by qualified staff, which assumes complete responsibility for the definitive installation and consequent good functioning of the product installed. One must also bear in mind all laws and national, regional, provincial and town council Standards present in the country in which the appliance has been installed, as well as the instructions contained in this manual.**

**The Manufacturer cannot be held responsible for the failure to comply with such precautions.**

After removing the packaging, ensure that the content is intact and complete. Otherwise, contact the dealer where the appliance was purchased.

All electric components that make up the product must be replaced with original spare parts exclusively by an authorised after-sales centre, thus guaranteeing correct functioning.

## SAFETY

- ♦ THE GENERATOR MUST NOT BE USED BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY AND MENTAL CAPACITIES OR WHO ARE UNSKILLED PERSONS, UNLESS THEY ARE SUPERVISED AND TRAINED REGARDING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.
- ♦ CHILDREN MUST BE CHECKED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.
- ♦ DO NOT TOUCH THE GENERATOR WHEN YOU ARE BAREFOOT OR WHEN PARTS OF THE BODY ARE WET OR DAMP.
- ♦ THE SAFETY AND ADJUSTMENT DEVICES MUST NOT BE MODIFIED WITHOUT THE AUTHORISATION OR INDICATIONS OF THE MANUFACTURER.
- ♦ DO NOT PULL, DISCONNECT, TWIST ELECTRIC CABLES LEAVING THE STOVE, EVEN IF DISCONNECTED FROM THE ELECTRIC POWER SUPPLY MAINS.
- ♦ IT IS ADVISED TO POSITION THE POWER SUPPLY CABLE SO THAT IT DOES NOT COME INTO CONTACT WITH HOT PARTS OF THE APPLIANCE.
- ♦ THE POWER SUPPLY PLUG MUST BE ACCESSIBLE AFTER INSTALLATION.
- ♦ DO NOT CLOSE OR REDUCE THE DIMENSIONS OF THE AIRING VENTS IN THE PLACE OF INSTALLATION. THE AIRING VENTS ARE ESSENTIAL FOR CORRECT COMBUSTION.
- ♦ DO NOT LEAVE THE PACKAGING ELEMENTS WITHIN REACH OF CHILDREN OR UNASSISTED DISABLED PERSONS.
- ♦ THE HEARTH DOOR MUST ALWAYS BE CLOSED DURING NORMAL FUNCTIONING OF THE PRODUCT.
- ♦ WHEN THE APPLIANCE IS FUNCTIONING AND HOT TO THE TOUCH, ESPECIALLY ALL EXTERNAL SURFACES, ATTENTION MUST BE PAID
- ♦ CHECK FOR THE PRESENCE OF ANY OBSTRUCTIONS BEFORE SWITCHING THE APPLIANCE ON FOLLOWING A PROLONGED PERIOD OF INACTIVITY.
- ♦ THE GENERATOR HAS BEEN DESIGNED TO FUNCTION IN ANY CLIMATIC CONDITION. IN PARTICULARLY ADVERSE CONDITIONS (STRONG WIND, FREEZING) SAFETY SYSTEMS MAY INTERVENE THAT SWITCH THE GENERATOR OFF. IF THIS OCCURS, CONTACT THE TECHNICAL AFTER-SALES SERVICE AND ALWAYS DISABLE THE SAFETY SYSTEMS.
- ♦ IN THE EVENT THE FLUE CATCHES FIRE, USE SUITABLE SYSTEMS FOR SUFFOCATING THE FLAMES OR REQUEST HELP FROM THE FIRE BRIGADE.
- ♦ THIS APPLIANCE MUST NOT BE USED TO BURN WASTE
- ♦ DO NOT USE ANY FLAMMABLE LIQUIDS FOR IGNITION
- ♦ DURING THE FILLING PHASE DO NOT PUT THE BAG OF PELLETS TO INTO CONTACT WITH THE PRODUCT
- ♦ THE MAJOLICAS ARE TOP QUALITY ARTISAN PRODUCTS AND AS SUCH CAN HAVE MICRO-DOTS, CRACKLES AND CHROMATIC IMPERFECTIONS. THESE FEATURES HIGHLIGHT THEIR VALUABLE NATURE. DUE TO THEIR DIFFERENT DILATION COEFFICIENT, THEY PRODUCE CRACKLING, WHICH DEMONSTRATE THEIR EFFECTIVE AUTHENTICITY. TO CLEAN THE MAJOLICAS, IT IS RECOMMENDED TO USE A SOFT, DRY CLOTH. IF A DETERGENT OR LIQUID IS USED, THE LATTER COULD PENETRATE INSIDE THE CRACKLES, HIGHLIGHTING THEM.

## ROUTINE MAINTENANCE

Based on Decree 22 January 2008 n°37 art.2, routine maintenance means interventions aimed at reducing degradation due to normal use, as well as dealing with accidental events entailing the need of first interventions, which however do not modify the structure of the system upon which one is intervening or its intended use according to the requirements laid down by the technical standards in force and by the manufacturer's use and maintenance manual.



## HYDRAULIC SYSTEM

Certain concepts referring to the Italian Standard UNI 10412-2 (2009) are described in this chapter.

As previously described, when installing, all national, regional, provincial and council Standards in force provided by the country in which the appliance has been installed must be complied with.

During installation of the generator it is MANDATORY to adjust the system with a manometer in order to display the water pressure.

**TABLE OF THE DEVICES FOR CLOSED VESSEL SYSTEMS PRESENT AND NOT PRESENT IN THE PRODUCT**

|                                                                                     |   |
|-------------------------------------------------------------------------------------|---|
| Safety valve                                                                        | ✓ |
| Pump control thermostat (it is controlled by the water probe and the board program) | ✓ |
| Acoustic alarm activation thermostat                                                | - |
| Water temperature indicator (display)                                               | ✓ |
| Pressure transducer with view on the display                                        | ✓ |
| Acoustic alarm                                                                      | - |
| Automatic adjustment circuit breaker switch (managed by board program)              | ✓ |
| Pressure transducer with minimum and maximum pressure switch alarm                  | ✓ |
| Water overheating automatic circuit breaker switch (block thermostat)               | ✓ |
| Circulation system (pump)                                                           | ✓ |
| Expansion system                                                                    | ✓ |

## INSTALLATION AND SAFETY DEVICES

The installation, relative system connections, commissioning and inspection of correct functioning must be carried out with the highest professional standards, in full compliance with the national, regional and council Standards in force, as well as these instructions. For Italy, installation must be carried out by professionally authorised staff (Ministerial Decree dated 22.01.08 n°37).

**The Manufacturer declines all liability for damage/injury to objects/persons caused by the plant.**

### TYPE OF SYSTEM

- ♦ There are 2 different types of system:
- ♦ Open vessel system and closed vessel system.
- ♦ The product has been designed and made to work with closed vessel systems.

**CHECK THAT THE PRELOAD OF THE EXPANSION VESSEL IS SET TO 1.5 BAR.**

### SAFETY DEVICES FOR CLOSED VESSEL SYSTEM

According to Standard UNI 10412-2 (2009) in force in Italy, closed systems must be equipped with: safety valve, pump control thermostat, acoustic alarm activation thermostat, temperature indicator, pressure indicator, acoustic alarm, regulation automatic circuit breaker switch, automatic circuit breaker block switch (block thermostat), circulation system, expansion system, safety dissipation system incorporated with the generator with thermal safety valve (self-activated), whenever the appliance does not have a temperature self-adjustment system.

### DISTANCES OF SAFETY DEVICES ACCORDING TO THE STANDARD

The temperature safety sensors must be in place on the machine at a distance no greater than 30 cm from the flow connection. Whenever the generators lack a device, those missing can be installed on the generator flow pipe, within a distance no greater than 1 m from the machine.

### COMMISSIONING CHECKS

Before connecting the boiler:

- wash all system piping thoroughly in order to remove any residues which might compromise the correct functioning of certain system components (pumps, valves, etc.).
- check to verify that the flue has adequate draught, that it is not narrowed and that other appliances do not discharge into the flue. This is to prevent unexpected power increases. The flue fitting can be mounted between the boiler and the flue only after this inspection. An inspection of the connections with pre-existing flues is recommended.

## ANTI-CONDENSATION DEVICE (MANDATORY)

Make sure a suitable anti-condensate circuit has been realised, which guarantees an appliance return temperature of at least 55°C. The automatic thermostatic valve, for instance, is used in solid fuel boilers as it prevents cold water from returning into the exchanger. A high return temperature allows efficiency improvement, reduces formation of smoke condensation and prolongs the generator's life span. The manufacturer recommends using the 55°C model with 1" hydraulic connections.

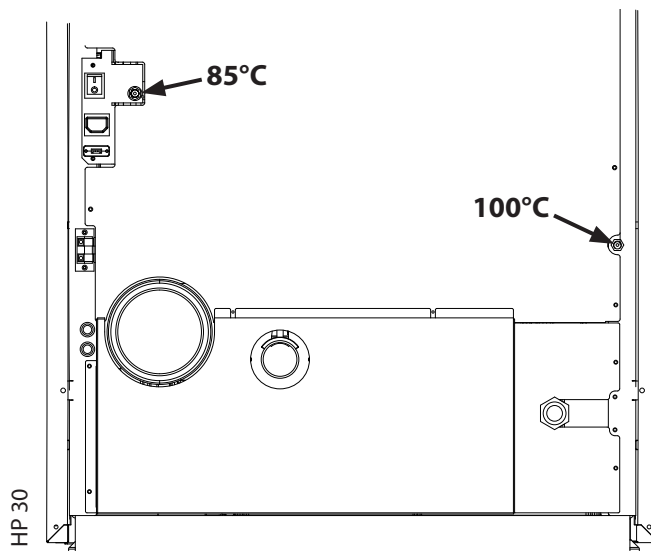
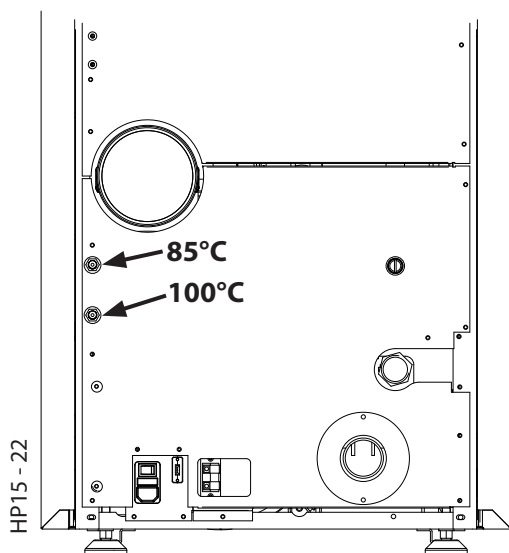
**Valve sold as an accessory (optional)**

## POSITIONING

For correct product functioning, it is recommended to position it so that it is perfectly level, using a spirit level.

## REARMS

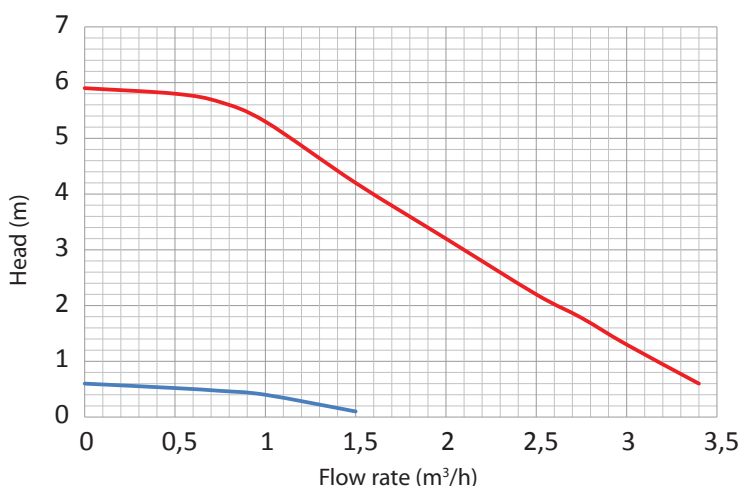
The figures below illustrate the positions of the tank (85°C) and H<sub>2</sub>O (100°C) rearms. Contact the qualified technician if one of the rearms should be triggered, so as to verify the cause.



## FEATURES

|                                                                        | HP15 | HP22 | HP30 |
|------------------------------------------------------------------------|------|------|------|
| Water content of the thermo-product heat exchanger (l)                 | 32   | 32   | 66   |
| Volume of expansion vessel integrated in the thermo-product (l)        | 8*   | 8*   | 12*  |
| 3 bar safety valve integrated in the thermo-product                    | ✓    | ✓    | ✓    |
| Minimum and maximum pressure switch integrated into the thermo-product | ✓    | ✓    | ✓    |
| Pump integrated into the thermo-product                                | ✓    | ✓    | ✓    |
| Pump max. head (m)                                                     | 6    | 6    | 6    |

\* ENVISION A POSSIBLE ADDITIONAL EXPANSION VESSEL DEPENDING ON THE SYSTEM WATER CONTENT.



The diagram to the side illustrates the behaviour of the pump used on our thermo-products at the speeds that can be set.

## INSTALLATION

### GENERAL

The flue gas exhaust and hydraulic connections must be carried out by qualified personnel who must issue installation conformity documentation compliant with national standards.

**The installer must provide the owner or person acting for him, according to the legislation in force, with the declaration of conformity, supplied with:**

- 1) the use and maintenance manual of the appliance and of the system components (such as for example, the smoke ducts, chimney, etc.);
- 2) photocopy or photograph of the chimney plaque;
- 3) system booklet (where applicable).

*The installer must ask to be issued with a receipt stating that the documentation has been provided, and must keep it with a copy of the technical documentation relating to the installation.*

For installation in a condominium, prior approval from the condominium's administrator must be requested.

### COMPATIBILITY

Installation in premises with fire hazards is forbidden. Installation in residential premises (except for sealed operation appliances) is also forbidden:

- ♦ in which there are liquid fuel-operated appliances with continuous or intermittent operation, which draw the combustion air in the room in which they are installed, or
- ♦ in which there are type B gas appliances intended for room heating, with or without production of domestic hot water and in adjacent and adjoining premises, or
- ♦ in which, in any case, the depression measured during installation between the internal and external environment is greater than 4 Pa

### INSTALLATIONS IN BATHROOMS, BEDROOMS AND STUDIO FLATS

Installation in bathrooms, bedrooms and studio flats is only allowed for sealed or closed hearth appliances with ducted combustion air taken from the outside.

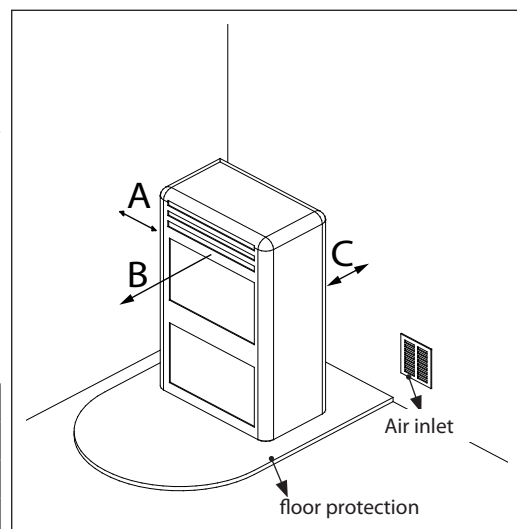
### POSITIONING AND SAFETY DISTANCES

The support surfaces and/or points must have a suitable capacity to bear the overall weight of the appliance, accessories and coverings. If the floor is made of a combustible material, we recommend using a non-combustible material to protect the front part from any burnt material which might fall during routine cleaning operations.

The generator must be level to function properly.

The adjacent, side and rear walls and the supporting surface must be made of non-combustible material. Installation adjacent to combustible or heat sensitive materials is allowed as long as there is a suitable safety distance in between, which for pellet stoves is:

| REFERENCES | INFLAMMABLE OBJECTS | NON-INFLAMMABLE OBJECTS |
|------------|---------------------|-------------------------|
| A          | 200 mm              | 100 mm                  |
| B          | 1500 mm             | 750 mm                  |
| C          | 200 mm              | 100 mm                  |



### INSTALLING INSERTS

When installing inserts, access must be prevented to the internal parts of the appliance and it must not be possible to access live parts during extraction operations.

Any wiring, for example the power cable or room probe, must be positioned so as not to be damaged during movement of the insert and must not come into contact with hot parts.

### VENTILATION AND AERATION OF THE INSTALLATION PREMISES

Ventilation is deemed sufficient when the room is equipped with air inlets according to the table:

| Appliance categories | Reference standard | Percentage of the net opening section with respect to the appliance fumes outlet section | Minimum net opening value of the ventilation duct |
|----------------------|--------------------|------------------------------------------------------------------------------------------|---------------------------------------------------|
| Pellet stoves        | UNI EN 14785       | -                                                                                        | 80 cm <sup>2</sup>                                |
| Boilers              | UNI EN 303-5       | 50%                                                                                      | 100 cm <sup>2</sup>                               |

In any case ventilation is deemed sufficient when the pressure difference between the external and internal environment is equal to or less than 4 Pa.

In the presence of type B gas appliances with intermittent operation not intended for heating, they must have their own aeration and/or ventilation opening.

The air inlets must meet the following requirements:

- they must be protected with grids, metal mesh, etc., but without reducing the net useful section;
- they must be made so as to make the maintenance operations possible;
- positioned so that they cannot be obstructed;

The clean and non-contaminated air flow can also be obtained from a room adjacent to that of installation (indirect aeration and ventilation), as long as the flow takes place freely through permanent openings communicating with the outside.

The adjacent room cannot be used as a garage, or to store combustible material or for any other activity with a fire hazard, bathroom, bedroom or common room of the building.

## FLUE GAS EXHAUST

The heat generator works in depression and is equipped with an outlet fan for flue gas extraction. There must be a single exhaust system for the generator. Using a flue that is shared with other devices is not allowed.

The components of the flue gas exhaust system must be chosen in relation to the type of appliance to be installed in compliance with:

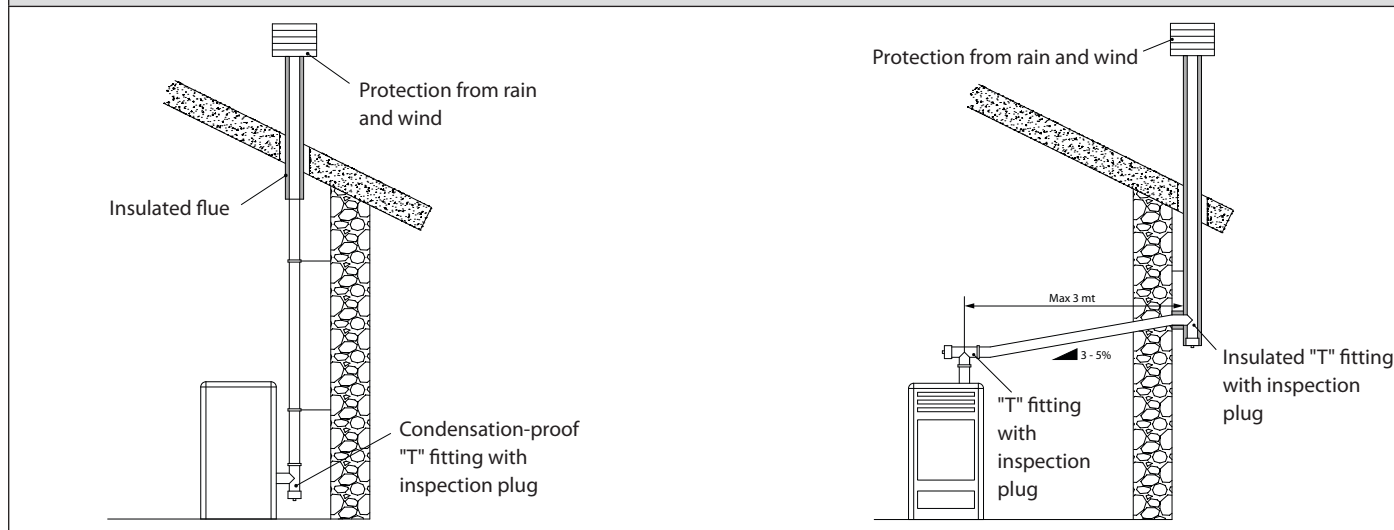
- UNI/TS 11278 in the event of metal chimneys, with particular attention to that stated in the specification;
- UNI EN 13063-1 and UNI EN 13063-2, UNI EN 1457, UNI EN 1806 in the event of non-metallic chimneys.
- The length of the horizontal section must be minimal and, in any case, no longer than 3 metres, with a minimum upward slope of 3%.
- There must not be more than 4 direction changes including the one due to the use of the "T" element.
- A "T" fitting with a condensation collection cap must be provided at the base of the vertical section.
- If the exhaust is not inserted in an existing flue, a vertical section with a windproof end piece is required (UNI 10683).
- The vertical duct can be inside or outside the building. If the smoke duct is inserted in an existing flue, it must be certified for solid fuel.
- If the smoke duct is outside the building, it must always be insulated.
- The smoke ducts must have at least one airtight inlet for flue gas sampling.
- All the sections of the flue gas duct must be accessible to inspection.
- Inspection openings must be provided for cleaning.

## CHIMNEY CAP

The chimney caps must meet the following requirements:

- they must have a useful outlet section no less than double that of the chimney/ducted system on which it is installed;
- they must be adapted in order to prevent the penetration of rain and snow in the chimney/ducted system;
- they must be built so that, in the event of winds coming from all directions and from any angle, the expulsion of combustion products is in any case ensured;

## EXAMPLES OF CORRECT CONNECTION TO THE CHIMNEY



## CONNECTION TO THE MAINS ELECTRIC SUPPLY

The generator is supplied with an electric power cable to be plugged into a 230V 50 Hz socket, possibly with a circuit breaker switch. The socket must be easily accessible.

The electrical system must be compliant with standards. The efficiency of the earthing circuit must be checked. Unsuitable earthing of the system can cause malfunctioning for which the manufacturer will not be held liable.

Power supply variations beyond 10% can cause faulty operation of the product.

## PELLETS AND FEEDING

Pellets are made by applying high pressure to sawdust, or wood waste products (not containing paint) from sawmills, carpentry and other activities related to processing and working with wood.

Given that it does not use any glue to hold it together this type of fuel is completely environmentally friendly. In fact the compactness of the pellets over time is guaranteed by a natural substance found in the wood itself: wood coal. In addition to being an environmentally friendly fuel in that it pushes wood residues to the limits pellets also have technical advantages.

While wood has a calorific value of 4.4kWh/kg. (with 15% humidity after around 18 months of seasoning) the calorific value of pellets is 5 kWh/kg.

Pellet density is 650kg/m<sup>3</sup> and the water content is equal to 8% of its weight. For this reason they do not require seasoning in order to arrive at a sufficiently adequate degree of heat yield.

The pellets used must comply with the characteristics described by the following standards:

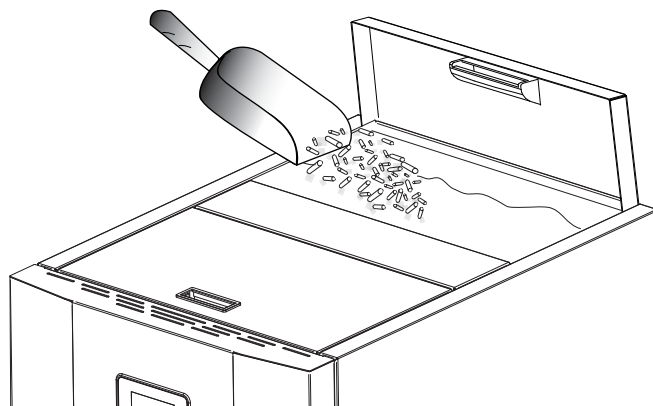
- ♦ **EN PLUS - UNI EN 14961 - 2 (UNI EN ISO 17225-2) class A1 or A2**

The manufacturer always recommended using pellets with a diameter of 6 mm with its products.

### PELLET STORAGE

In order to ensure problem-free combustion pellets must be stored in a dry place.

Open the tank lid and load the pellets using a scoop.



**THE USE OF EXPIRED PELLETS OR ANY OTHER MATERIAL WILL AFFECT THE FUNCTIONALITY OF YOUR GENERATOR AND MAY LEAD TO THE TERMINATION OF THE WARRANTY AND CESSATION OF ANY ACCOMPANYING RESPONSIBILITY ON THE PART OF THE MANUFACTURER**

## CHECKS AND PRECAUTIONS FOR FIRST IGNITION

### IMPORTANT!

**IN ORDER FOR THE GENERATOR TO WORK PROPERLY, THE HYDRAULIC SYSTEM'S PRESSURE MUST BE BETWEEN 0.6 AND 2.5 BAR.**

If the pressure detected by the digital pressure switch is below 0.6 or above 2.5 bar, it triggers a boiler alarm.

Bringing the water pressure within the standard values, it is possible to reset the alarm by pressing the button  for 3 seconds (The alarm can be reset only if the fumes motor has stopped and 15 minutes have elapsed from the display of the alarm)

### THE PELLET LOADING MOTOR DOES NOT WORK:

Due to the filling of the system, it is normal that there is air inside the circuit.

During the 1st ignition cycle, water movement causes the displacement of air bubbles and their out-flow from the automatic vents out of the system. This can cause the pressure to drop and activate the minimum pressure switch, which stops the motor that transports the pellets and, therefore, the heat generator.

Vent out the system, if necessary even multiple times, to remove the air, and reload it if the pressure is too low.

It is not a malfunction, but a normal occurrence due to its filling. After filling, the plumber must always thoroughly vent the system, using the special vents in the circuit and running the "air breather" function on the machine. (After the first ignition and with a cold machine, re-activate the function "air breather" - see chapter "OTHER FUNCTIONS")

### BULB THERMOSTATS - RESET:

Check by pressing the reset buttons (85 - 100°C) located on the back of the appliance, before contacting a technician (see section RESET).

## TOUCH SCREEN DISPLAY

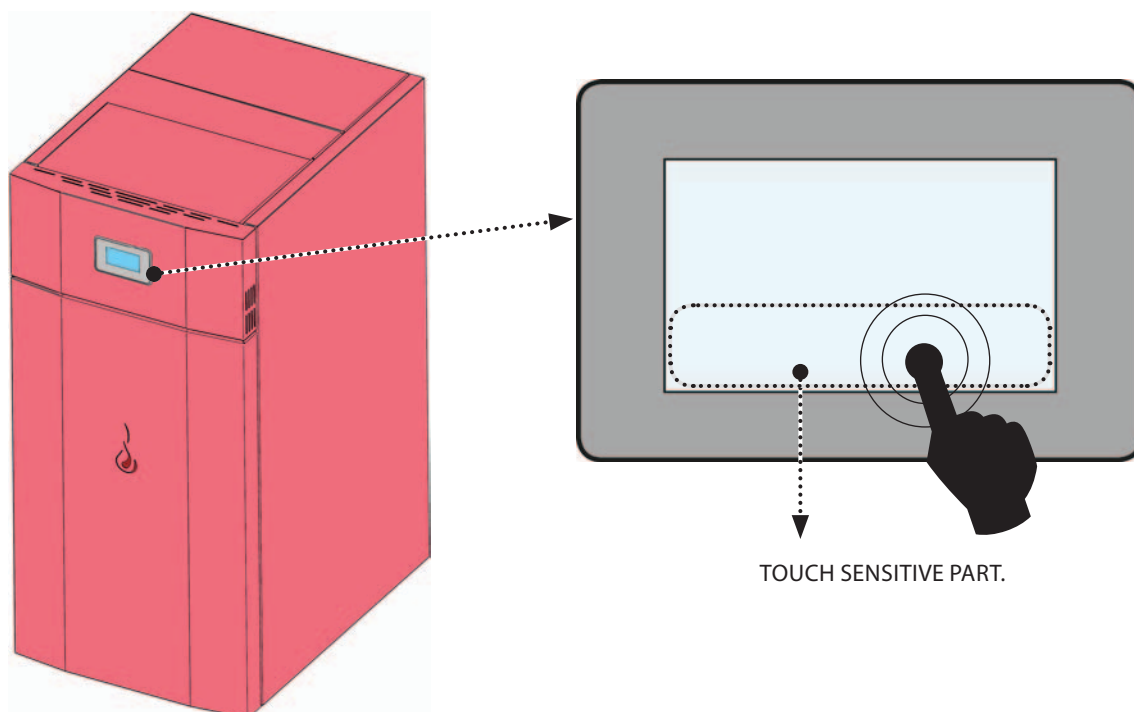
The boiler is equipped with a modern touch-screen display that allows the adjustment of the individual device functions in an easy and intuitive way to the user.

All adjustments and settings depicted in the screens can be performed directly via the integrated touch-screen display.

Tapping the buttons (icons) on the display surface the different actions are activated. The surface of the touch-screen display reacts with the touch of a finger.

### WARNING

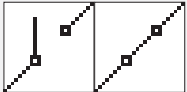
- Do not use protective films, this may cause the malfunction of the display
- Do not put the touch screen to direct or indirect contact with the water. The touch screen display may malfunction in humid conditions or when exposed to water.
- To avoid damaging the touch-screen display, it should not be touched with sharp objects and too much pressure must be exerted with your fingers.

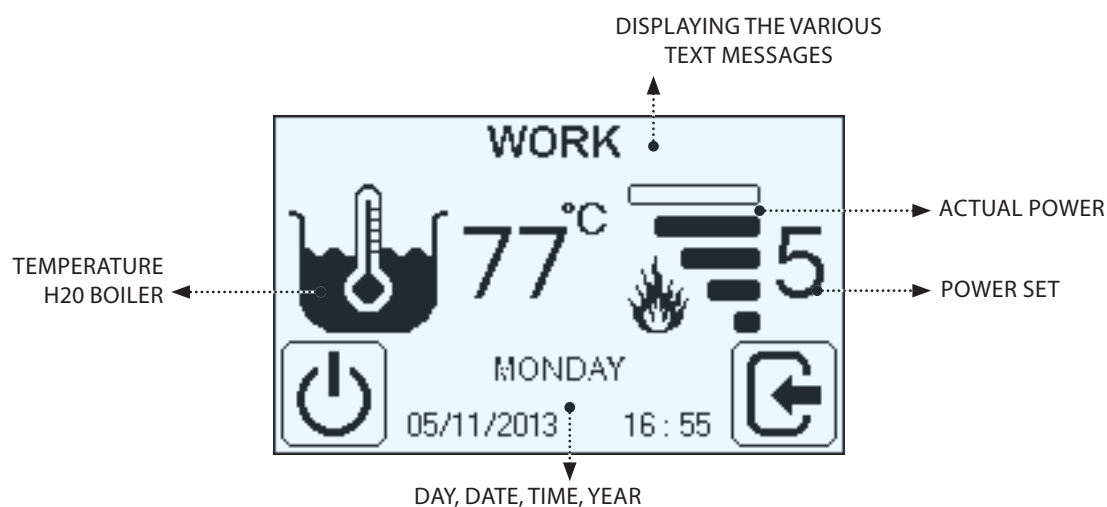


THE MANUFACTURER HAS AN ADDITIONAL CARD OPTION THAT ALLOWS THE BOILER, THE FOLLOWING ADDITIONAL FUNCTIONS IN SYSTEM MANAGEMENT. THE TABLE BELOW SHOWS THE VARIOUS POSSIBILITIES WHICH THE OPTIONAL CAN OFFER.

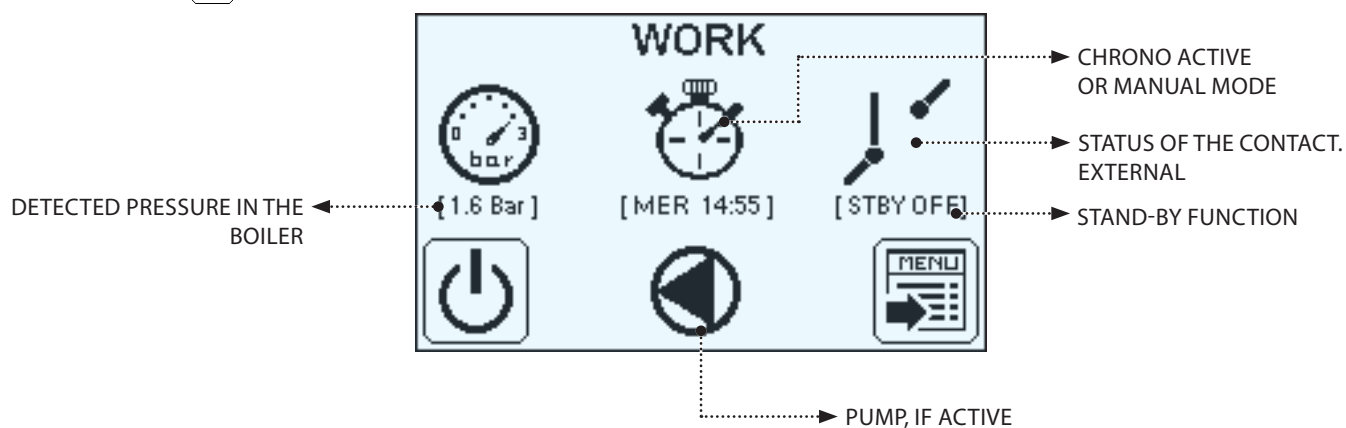
|                                                                       |   |
|-----------------------------------------------------------------------|---|
| Management of domestic water accumulation                             | ✓ |
| Puffer management                                                     | ✓ |
| 3 heating areas                                                       | ✓ |
| Option of instant domestic water                                      | ✓ |
| Management puffer pump or 4th heating area                            | ✓ |
| Anti-Legionnaires' disease management for domestic water accumulation | ✓ |
| Chrono domestic water management accumulation                         | ✓ |
| Auxiliary output management and control                               | ✓ |

## CONTROL PANEL AND ICONS

| ICON                                                                              | MEANING                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | • Indicates the presence of an alarm. The machine will turn off.                                                                                                                                                                 |
|  | • This indicates the system pressure detected by the machine.                                                                                                                                                                    |
|  | • It indicates the pump operation: Off = pump OFF; ON = pump on<br>Flashing ring = the safety device is active (H2O temperature > 85°C)                                                                                          |
|  | • Indicates the contact of the external additional thermostat<br>Contact closed: the contact of the additional external thermostat is closed.<br>Contact open: the contact of the additional external thermostat is open.        |
|  | • Indicates the operating status of the machine, with manual operation or weekly programming.<br>Hand icon: the weekly programming function is off (manual management)<br>Chrono icon: activates the weekly programming function |



By briefly pressing  appear additional information, such as:

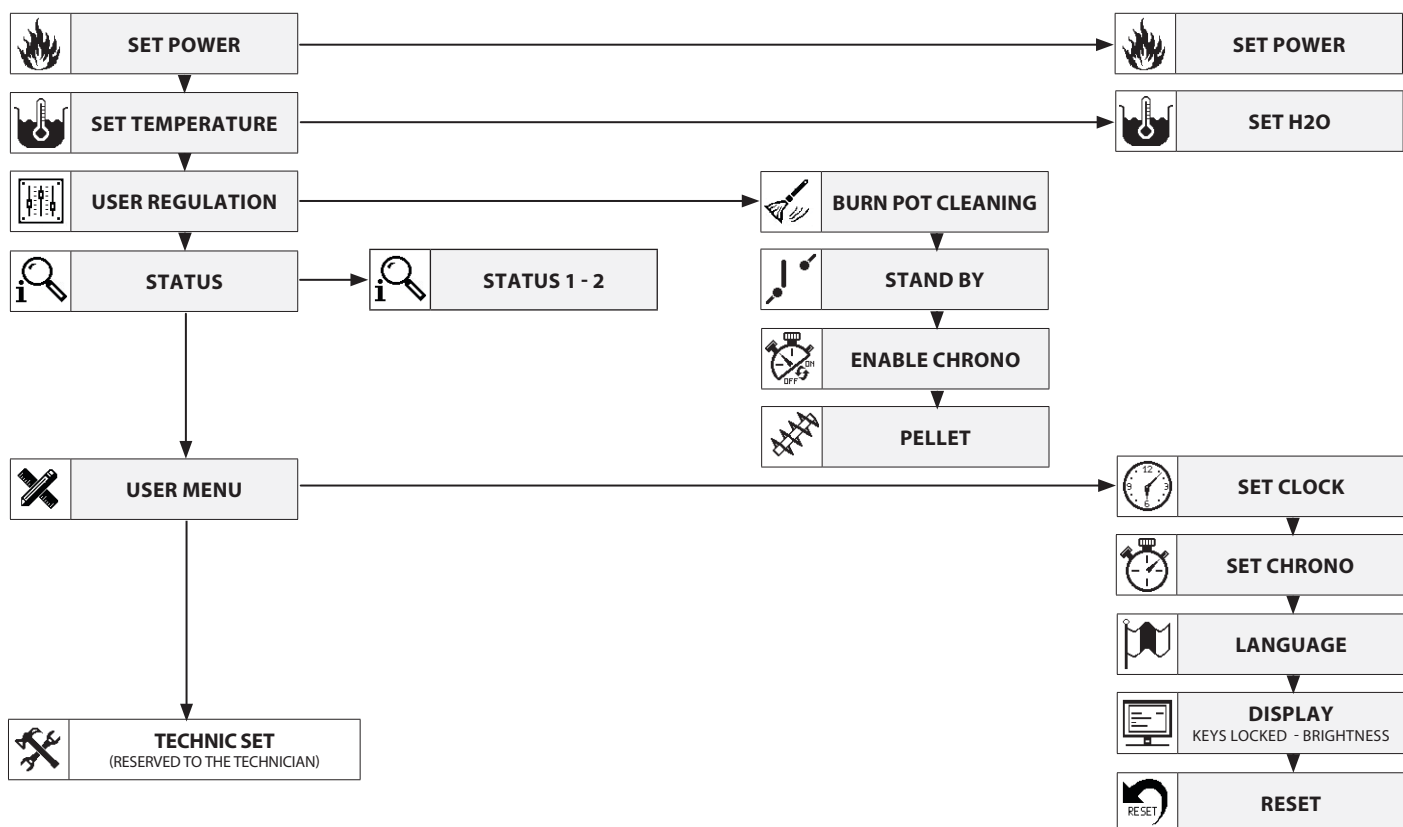


## KEY FUNCTIONS

| KEY                                                                               | FUNCTION                                                                                             |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  | Press and hold for more than 2 seconds to turn on or turn off the boiler.                            |
|  | Press and hold for more than 2 seconds to exit the menu. Briefly pressing you can go back to a step. |
|  | Allows access to additional info.                                                                    |
|  | Allows access to the user menu.                                                                      |

| KEY                                                                                | FUNCTION                                                                                             |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  | Allows increases/select (+) or decrease (-) a mode (SET)                                             |
|  | Allows you to scroll through the menus                                                               |
|  | Allows to enable (ON) or disable (OFF)                                                               |
|   | It allows to go back a step if pressed briefly, if held longer allows to exit until the main screen. |

## MENU STRUCTURE



## BASIC INSTRUCTIONS

The following recommendations must be followed the first times the generator is ignited:

- ♦ It is possible that slight odours are produced due to the drying of the paints and silicones used. Do not remain in the environment for long periods.
- ♦ Do not touch the surfaces as they could still be unstable.
- ♦ Air the room well several times.
- ♦ The hardening of the surfaces is terminated after several heating processes.
- ♦ This appliance must not be used to burn waste.

Before igniting the generator, the following points must be verified:

- ♦ The hydraulic system must be completed in compliance with the guidelines of the regulations and the manual.
- ♦ The tank must be full of pellets
- ♦ The combustion chamber must be clean
- ♦ The burn pot must be completely free and clean
- ♦ Check the hermetic closure of the fire door and the ash drawer
- ♦ Check that the power supply cable is connected correctly
- ♦ The bipolar switch in the rear right part must be positioned on 1.



## COMMISSIONING SETTINGS

Once the power cable at the back of the generator has been connected, move the switch, located on the back, to position (I).

The switch at the back of the generator powers the generator board.

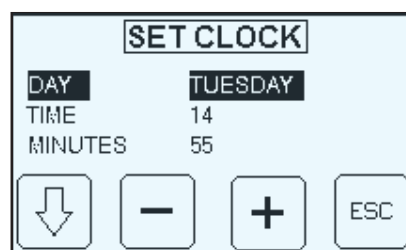
The generator stays off and the panel shows an initial screen with the word OFF.

### MAINS FREQUENCY 50/ 60HZ

In the event the generator is installed in a country with 60Hz frequency, the generator will display "wrong mains frequency". Change in the frequency to 60Hz.

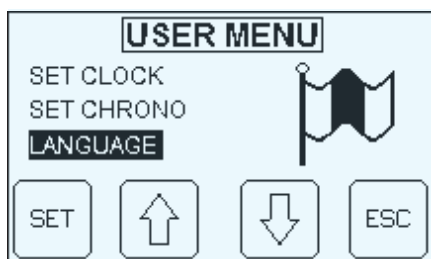
### SET CLOCK

Setting the clock allows to adjust the time and date



### SET LANGUAGE

It enables the user to select one of the available languages. Italian - English - French - German - Spanish



## OPERATION AND LOGICS

### IGNITION

Once you have checked the "basic instructions" listed above, press the  for more than two seconds to turn on the generator. 15 minutes are available for the ignition phase. After ignition and having reached the control temperature, the generator stops the ignition phase and passes to STARTING.

### STARTING

During the start-up phase, the generator stabilises combustion, increasing it progressively, then switching to WORK mode.

### WORK

During the work phase, the generator reaches the set power; see following item.

### ADJUSTMENT SET POWER

Set the operating power from 1 to 5.

Power 1 = minimum level - Power 5 = maximum level.

### ADJUSTMENT SET TEMPERATURE H2O

Set the boiler temperature between 65 - 80°C .

### PUMP OPERATION

The pump activates water circulation when the in the generator the t° of the water reaches 60°C. As the pump always functions above 60°, an always open heating area is recommended to make product functioning increasingly uniform, preventing overheating blocks. Normally this area is defined "Safety zone".

### BURNING POT CLEANING

At pre-set intervals the generator performs the brazier cleaning, switching the machine off.

When the cleaning phase is finished, the generator will re-start automatically and continue its work back to the power level selected.

### MODULATION and H-OFF

As the water temperature approaches the set point, the boiler starts to modulate automatically bringing itself to the minimum power.

If the temperature increases beyond the set point, it will automatically switch off indicating **H-OFF** and will automatically go back on when the temperature drops below the set point.

### SWITCH-OFF

Press key 1 for three seconds.

When the operation has been performed, the appliance automatically enters the switch- off phase, blocking the supply of pellets.

***The flue gas exhaust motor will remain on until the generator temperature has dropped below the factory parameters.***

### RE-IGNITION

The genertor can be re-ignited both automatically or manually, when the cooling cycle conditions and the preset timer have been satisfied.



**DO NOT USE ANY INFLAMMABLE LIQUIDS FOR IGNITION!**  
**DO NOT ALLOW THE BAG OF PELLETS TO COME INTO CONTACT WITH THE HOT GENERATOR!**  
**IN THE EVENT OF CONTINUOUS NO IGNITION, CONTACT AN AUTHORISED TECHNICIAN.**

## STBY - ADDITIONAL ROOM THERMOSTAT

**PLEASE NOTE : Installation must be performed by an authorised technician**

Is it possible to thermostat a room adjacent to the room where it was placed the generator just connecting a room thermostat according to the procedure described in the next step (it is advisable to position the optional mechanical thermostat at a height of 1.50 m from the floor). The generator functioning with the external thermostat connected to the STBY terminal can be different on the basis of the activation or disabling of the STBY function.

**The STBY clamp leaves the factory jumpered, therefore it is always with closed contact (on request).**

### ADDITIONAL ROOM THERMOSTAT FUNCTIONING WITH STBY ACTIVE (STBY ON)

When the contact or the external thermostat is satisfied (open contact / temperature reached), the generator will switch off. As soon as the contact or external thermostat switches to the "not satisfied" status (closed contact/temperature to be reached) it will re-ignite.

**PLEASE NOTE: the generator operation depends on the temperature of the water inside the thermal-product and relevant factory setting. If the generator is in H OFF (water temperature reached), any additional contact or thermostat request will be ignored.**

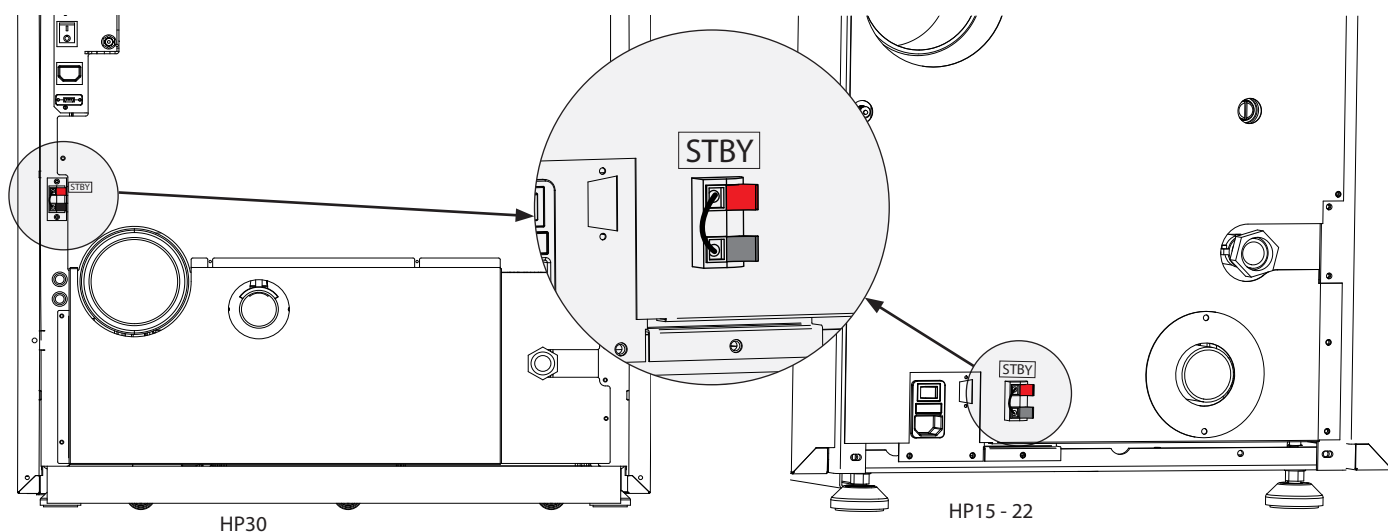
### OPERATION OF THE AMBIENT ADDITIONAL THERMOSTAT WITH STBY DISABLED [STBY OFF]

When the contact or external thermostat is satisfied (open contact / temperature reached), the generator will go to minimum. As soon as the contact or external thermostat switches to the "not satisfied" status (closed contact / temperature to be reached) the generator will start to work again at the pre-set power.

**PLEASE NOTE: the generator operation depends on the temperature of the water inside the general and relevant factory setting. If the generator is in H OFF (water temperature reached), any additional contact or additional thermostat request will be ignored.**

### ADDITIONAL ROOM THERMOSTAT INSTALLATION

- ♦ Switch the appliance off using the master switch positioned on the rear of the generator.
- ♦ Remove the plug from the socket.
- ♦ Refer to the electrical diagram to connect the two thermostat cables onto the relative clamps positioned on the rear of the machine, one is red and the other one is black (STBY clamp).



## AUX

In case you are using the manufacturer's Power Line Communication devices, a qualified technician must perform the connection directly on the board. For more information, contact your local dealer.

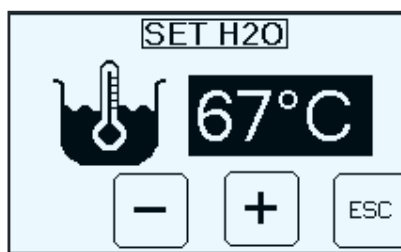
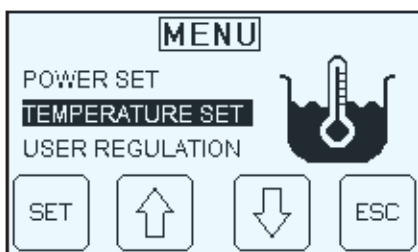
## SET POWER

The following menu allows to set the power. Minimum power 1, maximum power 5.



## SET TEMPERATURE

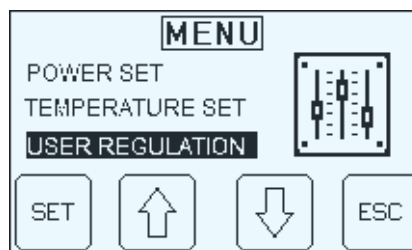
The following menu allows the boiler temperature to be set. Possible settings are: 65 - 80°C.



## USER REGULATION

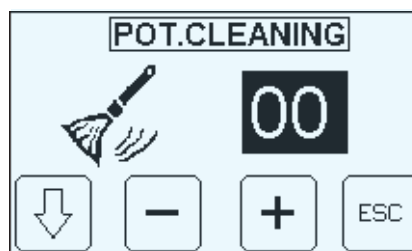
The USER REGULATION allows you to:

- Adjust the frequency of the BURNING POT CLEANING
- Enable / disable the STAND BY
- Enable / disable the CHRONO
- Adjust the PELLETS in percentage.



### • BURN POT CLEANING

The menu allows to increase the frequency of the automatic cleaning of the brazier. (Range 0-50)



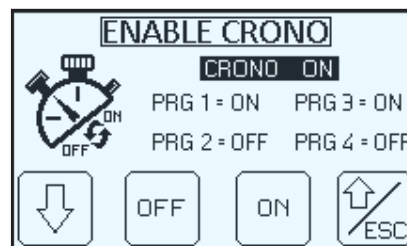
### • STAND BY

The Stby function is used if immediate generator switch-off or modulation via an additional thermostat.



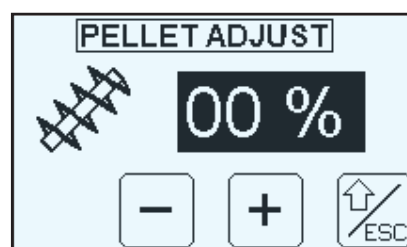
## • ENABLE CHRONO

It allows to enable/disable the chrono and the various time slots of the boiler.



## • PELLET REGULATION

The following menu allows to adjust the percentage of pellet feed. If the generator has operating problems due to the quantity of pellets, you can adjust the pellet load directly from the control panel. Problems related to fuel quantity can be divided into 2 categories:



### FUEL SHORTAGE:

- the generator never manages to develop an adequate flame, tending to remain very low even at high power.
- at minimum power the generator tends to almost switch-off taking the generator into **"NO PELLETS"** alarm.
- when the generator displays the alarm for **"NO PELLETS"** there may be non-burnt pellet inside the brazier.

### EXCESS FUEL:

- the generator develops a very high flame even at low power.
- the panoramic glass tends to get very dirty, almost completely darkening it.
- the burn pot tends to become encrusted, blocking the holes for air intake due to the excessive pellet feed, as it is only burned partially.

The adjustment to be performed is in percentage. Therefore a modification of this parameter will lead to a proportional variation of all generator feeding speeds.

Feeding is from -30% to +20%.

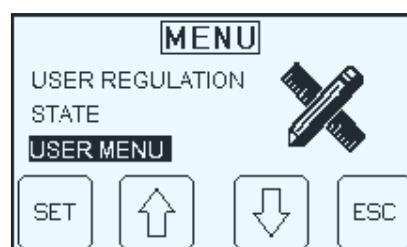
## STATUS

*References reserved to the technician*

## USER MENU

The USER MENU allows you to:

- Set date and time (See chapter before ignition)
- Set the programming CHRONO
- Set the LANGUAGE
- Set the DISPLAY
- Use the RESET

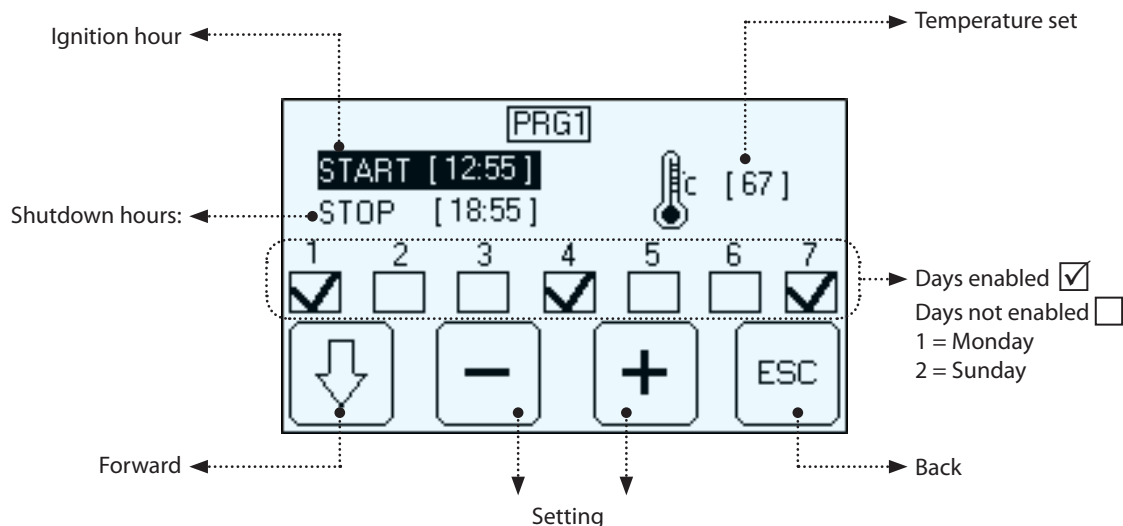


## • CHRONO

The chrono allows to program 4 time spans within a day to use every day of the week.

**The switch-on and switch-off time can be set in every time slot, along with the days of use of the programmed time slot and the desired water temperature (65 - 80°C).**

**TO ENABLE THE CHRONO, FOLLOW THE INSTRUCTIONS DESCRIBED IN "ENABLE CHRONO" CHAPTER**



| RECOMMENDATIONS                                                                                                                                                                                                                                                                                                                                                                                                                             | EXAMPLE                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <p>The ignition and switch-off times must be within the arc of one day, from 0 to 24 and not over several days:<br/>                     Before using the chrono function, set the current day and time.<br/>                     Therefore check that the points listed in the "Set clock" sub-chapter have been followed, so that the chrono function works.<br/>                     As well as programming it, activate it as well.</p> | Switch-on time 07:00<br>Switch-off time 18:00<br><b>CORRECT</b>   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             | Switch-on time 22:00<br>Switch-off time 05:00<br><b>INCORRECT</b> |

## • LANGUAGE

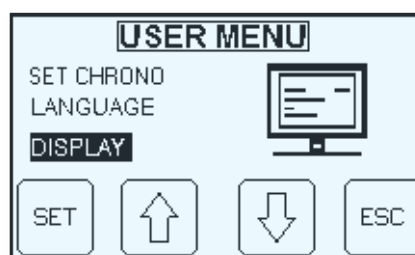
(See chapter before ignition)

## • DISPLAY

- Buzzer
- Brightness
- Contrast

The Display menu allows you to:

- ♦ Enable / disable the buzzer.
- ♦ Adjust the brightness of the display
- ♦ Adjust the contrast of the display



## ♦ BUZZER

When set to "OFF" the acoustic signal is disabled.

## ♦ BRIGHTNESS

It allows you to adjust the backlight of the display.

The possible settings range from OFF - 10 to 30.

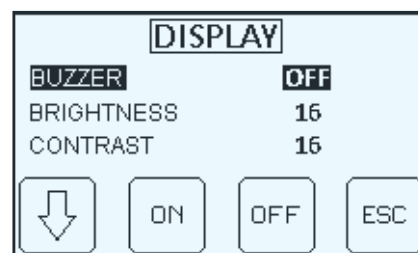
Activating OFF, the back light of the display will go off after a preset delay.

The back light will go on as soon as a key is pressed or if an alarm should be triggered in the machine.

## ♦ CONTRAST

Allows you to change the display contrast.

(Range from 2-50)



## • RESET

Allows to reset all values modifiable by the user to the default values.



## OTHER FUNCTIONS

### AIR DISCHARGE

This function allows to bleed any air in the thermal-product. (For 15 minutes the pump operates alternately, 30 seconds on and 30 seconds off)  
To activate the function:

With the generator cold and in "OFF" state press and then "AIR" for 5 secs.

To stop the "air Bleeding function press the button

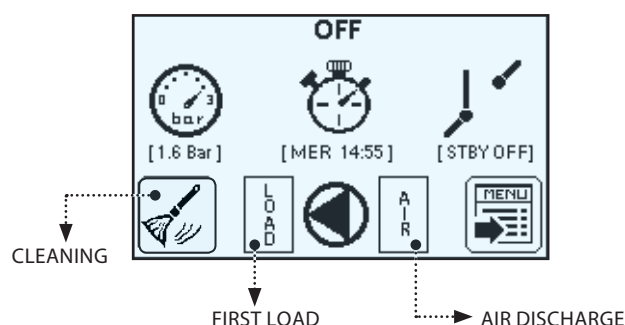
### FIRST LOAD

This function allows to activate the pellet feeding motor reducer for continuous functioning.

To activate the function:

With the generator cold and in "OFF" state press and then "LOAD" for 5 secs.

To stop the "First load" press the key



### COMBUSTION CHAMBER CLEANING

This feature allows you to open the bottom brazier, facilitating the cleaning of the combustion chamber.

To activate the function:

With the generator cold and in "OFF" state press and subsequently for 5 sec.

With the ash hook supplied as standard scrape the walls of the combustion chamber and transfer the residual ash in the brazier room → into the ash tray.

After cleaning, press and hold the button

**OPEN THE DOOR ONLY WHEN THE OPERATION IS PERFORMED! THE DISPLAY WILL INDICATE THE SUCCESSFUL OPENING!**

## CLEANING AND MAINTENANCE

**ALWAYS FOLLOW THE INSTRUCTIONS IN MAXIMUM SAFETY CONDITIONS!**

- ♦ Make sure the power cable is unplugged since the generator could be programmed to start.
- ♦ That the generator is cold in its entirety.
- ♦ The ashes are completely cold.
- ♦ Ensure an effective exchange of air in the room during the cleaning of the product.
- ♦ A poor cleaning is detrimental to the proper functioning and safety!

## MAINTENANCE

For correct operation, the generator must undergo routine maintenance by a **qualified technician** at least once a year. The routine checks and maintenance operations must always be performed by **qualified** trained technicians in accordance with the applicable regulations in force and with the instructions provided in this use and maintenance manual.



**EVERY YEAR MAKE THE EXHAUST FUMES, SMOKE DUCTS AND "T"-FITTINGS, INCLUDING CAPS AND INSPECTION DOORS BE CLEANED - IF ANY CURVES AND ANY HORIZONTAL SECTIONS!  
THE CLEANING OF THE GENERATOR FREQUENCY IS APPROXIMATE! THEY DEPEND ON THE QUALITY OF THE PELLETS USED AND THE FREQUENCY OF USE.  
IT CAN HAPPEN THAT THESE OPERATIONS SHOULD BE PERFORMED MORE FREQUENTLY.**

## CLEANING AND MAINTENANCE BY THE USER

Routine cleaning operations, as specified in this use and maintenance manual, must be performed with the utmost care according to the instructions, procedures and frequency intervals described in this use and maintenance manual

### CLEANING THE SURFACES AND COVERING

**Never use abrasive or chemically aggressive detergents for cleaning!**

The surface cleaning must take place when both the generator and the coating are completely cold. For the maintenance of surfaces and metal parts, simply use a damp cloth with water or mild soap and water.

Failure to observe the instructions may damage the surface of the generator and invalidate the warranty.

### CLEANING THE CERAMIC GLASS

**Never use abrasive or chemically aggressive detergents for cleaning!**

The cleaning of the ceramic glass is allowed only when the latter is completely cold.

To clean the ceramic glazing, simply use a dry brush and some damp newspaper dabbed in the ash. If the glazing is very dirty, only use a specific ceramic glazing detergent. Spray a modest amount onto a cloth and wipe the ceramic glazing.

Do not spray cleaner or any other liquid directly on the glass or on the gaskets.

Failure to observe the instructions may damage the surface of the ceramic glass and invalidate the warranty.

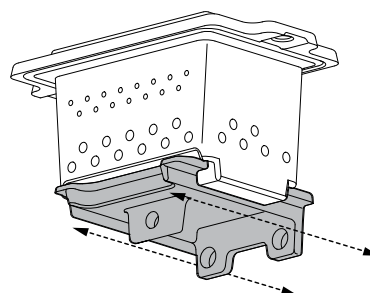
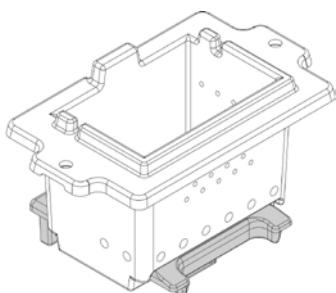
### CLEANING THE TANK PELLETS

When the tank empties completely, unplug the power cord from the generator and remove residues (dust, chips, etc..) from the tank empty, before filling it.

### DAILY- BRAZIER:

Through a mechanical system, the burn pot is cleaned at set intervals automatically by the boiler. In the picture below one can see the burn pot with the opening underneath it.

**It is in any case recommended to remove any ash residue using a vacuum cleaner, at least once every 2 days.**

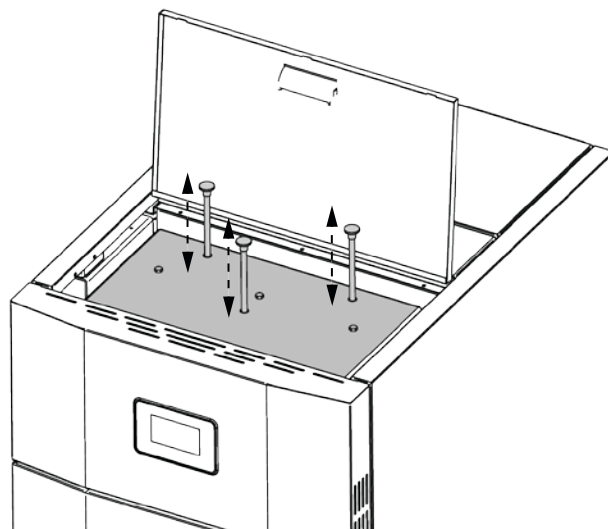




## DAILY - SCRAPERS:

**HP15-22:** The heat exchangers must only be cleaned when the generator is cold! Cleaning the heat exchangers allows to ensure constant heat output over time. This type of maintenance must be performed at least once a day. To do this, just use the relevant scrapers positioned in the upper part of the generator, making the upward movements and vice versa several times.

**HP30:** The cleaning of the heat exchangers is carried out automatically using a mechanical system that allows to guarantee over time constant heat output.

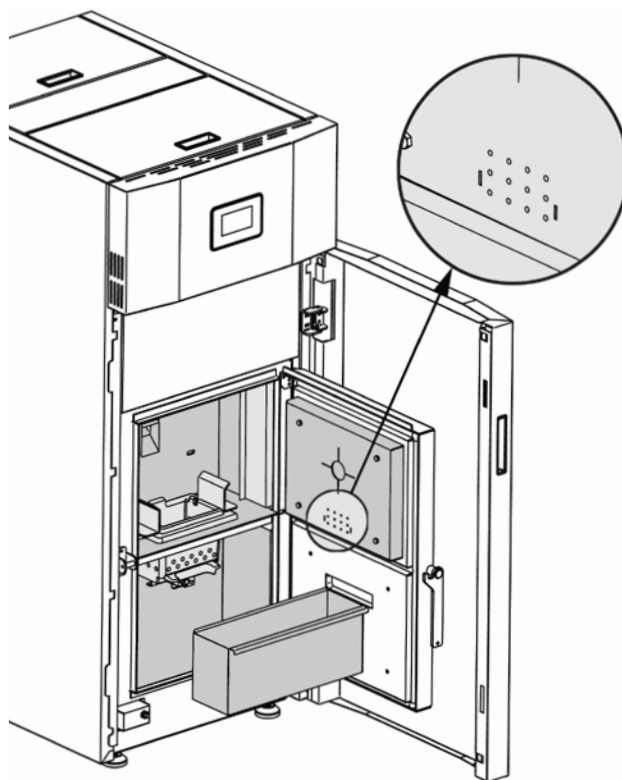


## WEEKLY - COMBUSTION CHAMBER AND THE ASH TRAY:

It is recommended to remove the ash in the combustion chamber at least once a week using a suitable vacuum cleaner. To facilitate cleaning, we recommend the activation of the "CLEAN COMBUSTION CHAMBER" See chapter ➔ OTHER FUNCTIONS.

Weekly or when necessary:

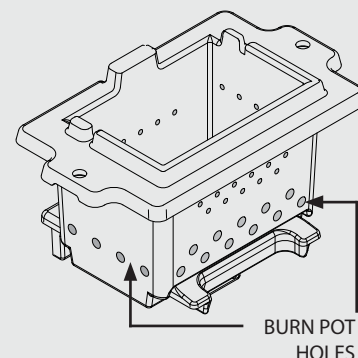
- empty the ashes from the drawer.
- clean the holes inside the door.



### A CLEAN BRAZIER ENSURES SUCCESSFUL OPERATION!

KEEPING THE BRAZIER AND ITS HOLES ALWAYS THOROUGHLY CLEAN FROM ANY RESIDUE FROM THE COMBUSTION, GUARANTEES EXCELLENT COMBUSTION OF THE GENERATOR OVER TIME, TO AVOID ANY MALFUNCTIONS THAT MAY REQUIRE THE INTERVENTION OF THE TECHNICIAN.

IT IS POSSIBLE TO USE THE FUNCTION IN THE USER MENU "ADJUSTMENT SET - PELLET LOAD TO ADJUST COMBUSTION BASED ON THE DESCRIBED REQUIREMENTS.



BURN POT HOLES

## ROUTINE MAINTENANCE PERFORMED BY QUALIFIED TECHNICIANS

**Routine maintenance must be performed at least once a year.**

Since the generator uses pellets as its solid fuel, it requires an annual routine maintenance operation which must be performed by a **qualified technician, using original spare parts only.**

Failure to comply with the above can compromise the safety of the appliance and void the the guarantee conditions.

Complying with the cleaning intervals dedicated to the user described in the use and maintenance manual will guarantee the correct combustion by the generator over time, avoiding any malfunctioning and/or failures which could require further intervention by the technician. Routine maintenance requests are not covered by the product guarantee.

## DOOR GASKETS, ASH DRAWER AND BURN POT

Gaskets guarantee the hermetic seal of the stove and its ensuing correct operation.

They must therefore be checked regularly: should they be worn or damaged, replace them immediately.

This must be performed by a qualified technician.

## CONNECTION TO THE CHIMNEY

Suction and clean the flue duct leading to the chimney once a year or whenever necessary. If the installation entails horizontal flue duct sections, suction all residue before it obstructs the passage of fumes.

## DECOMMISSIONING (END OF SEASON)

At the end of every season, before you turn the stove off, it is advisable to empty the pellet tank completely, suctioning any pellet residue and dust from the inside.

In addition, disconnect the generator from the electricity supply and, for increased safety - particularly if children are present - remove the power supply cable.

Routine maintenance must be performed at least once a year.

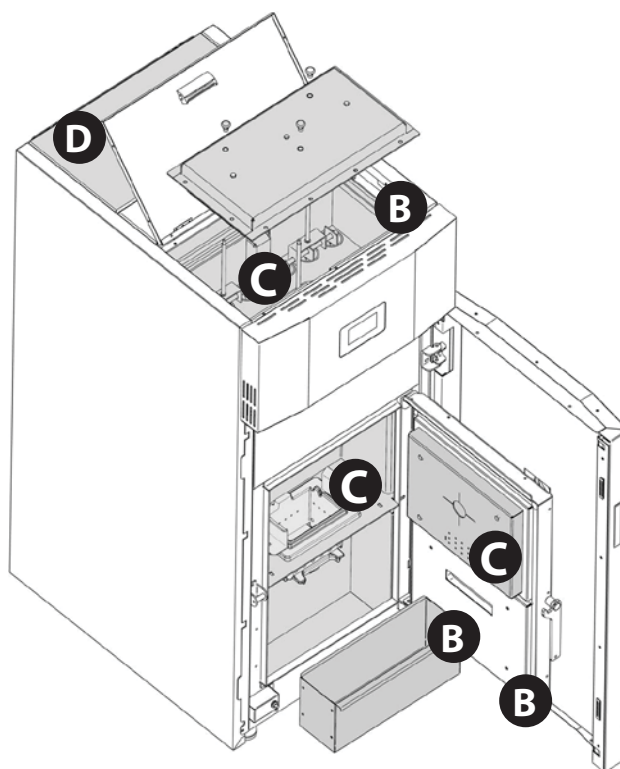


**IF THE POWER SUPPLY CABLE IS DAMAGED, IT MUST BE REPLACED BY TECHNICAL SERVICE STAFF OR IN ANY CASE BY A SIMILARLY QUALIFIED TECHNICIAN, SO AS TO AVOID ALL RISKS.**

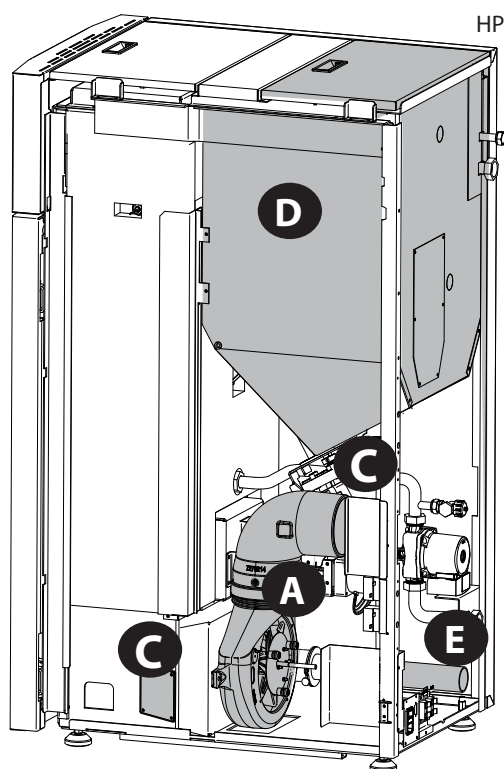
This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## ROUTINE MAINTENANCE

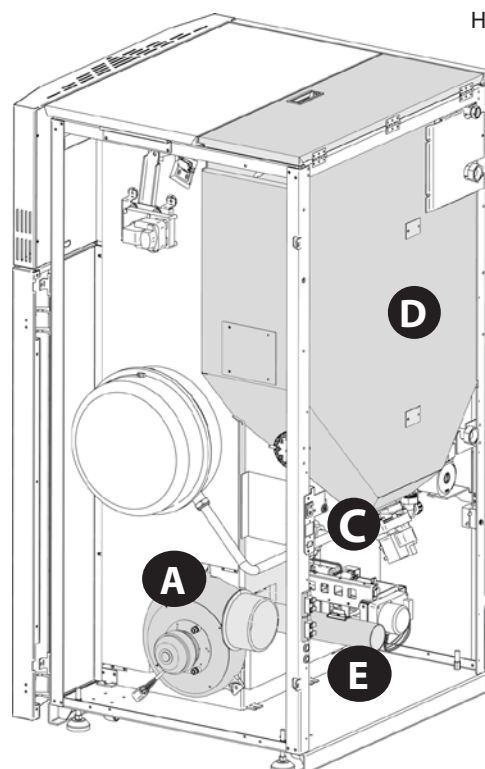
THE PICTURES ARE PURELY INDICATIVE.



HP15-22



HP30



|          |                                                                                                               |
|----------|---------------------------------------------------------------------------------------------------------------|
| <b>A</b> | Fumes motor (disassembly and cleaning and flue duct and "T"), new silicone in the dedicated points            |
| <b>B</b> | Inspection of gaskets, ash drawer and door (replace and apply silicone where envisaged)                       |
| <b>C</b> | Combustion chamber, door "air" slots and heat exchanger (full cleaning) including ignition-plug pipe cleaning |
| <b>D</b> | Tank (complete emptying and cleaning)                                                                         |
| <b>E</b> | Air intake pipe check and cleaning of the flow sensor where necessary                                         |

| DISPLAYS           |                                                                                                                                                                                                                                                                      |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DISPLAY            | REASON                                                                                                                                                                                                                                                               |
| OFF                | Stove off                                                                                                                                                                                                                                                            |
| START              | The start-up phase is in progress                                                                                                                                                                                                                                    |
| PELLET FEEDING     | Continuous pellet feeding is in progress during the ignition phase                                                                                                                                                                                                   |
| IGNITION           | The ignition phase is in progress                                                                                                                                                                                                                                    |
| START-UP           | The start-up phase is in progress                                                                                                                                                                                                                                    |
| WORK               | The normal work phase is in progress                                                                                                                                                                                                                                 |
| MODULATION         | The stove is working at minimum                                                                                                                                                                                                                                      |
| BURN POT CLEANING  | Automatic burn pot cleaning is in progress                                                                                                                                                                                                                           |
| FINAL CLEANING     | The final cleaning is in progress                                                                                                                                                                                                                                    |
| STAND-BY           | Stove off waiting for re-ignition due to an external thermostat                                                                                                                                                                                                      |
| STAND-BY COOLING   | A new ignition is attempted when the stove has just been switched off. When the stove switches off, one must wait for the complete shutdown of the fumes motor, then clean the burn pot. The stove can only be re-ignited when these operations have been performed. |
| HOFF               | Stove off due to water temperature over set                                                                                                                                                                                                                          |
| T - OFF            | Stove off waiting for re-ignition as all the requests have been satisfied                                                                                                                                                                                            |
| STAND-BY BLACK OUT | The stove is cooling after a power cut. Once cooling is completed it will re-start automatically                                                                                                                                                                     |
| ANTI-FREEZE        | The anti-freeze function is in progress as the H <sub>2</sub> O t° is below the factory set threshold the pump is active until the water reaches the pre-set factory parameter +2°C                                                                                  |
| ANTILOCK           | The pump antilock function is in progress (only if the stove has been in an OFF state for at least 96 hours); the pump is activated for the time pre-set by the manufacturer, in order to prevent it from blocking                                                   |
| AUTO BLOW          | The automatic blow is active                                                                                                                                                                                                                                         |

## ALARMS

| DISPLAY                                                                           | EXPLANATION                                                                                                                                           | SOLUTION                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Indicates the presence of an alarm.                                                                                                                   | On: indicates the presence of an alarm<br>Flashing: indicates the deactivation of the depression sensor.<br>The alarm can be reset by pressing key 1 for 3 seconds only if the fumes motor has stopped and if 15 minutes have elapsed from when the alarm was displayed.                           |
| <b>ASPIRATION FAULT</b>                                                           | Fumes motor fault                                                                                                                                     | Contact after-sales centre                                                                                                                                                                                                                                                                         |
| <b>FUMES PROBE</b>                                                                | Fumes probe failure.                                                                                                                                  | Contact after-sales centre                                                                                                                                                                                                                                                                         |
| <b>HOT FUMES</b>                                                                  | High flue gas temperature                                                                                                                             | Check pellet feed (see "Pellet feed adjustment"). If the problem cannot be solved, contact an authorised technician.                                                                                                                                                                               |
| <b>CLEAN CHECK UP 1 - 2</b><br>(1 = IN START-UP STAGE)<br>(2= IN OPERATING STAGE) | The door is not closed correctly.<br>The ash drawer is not closed correctly.<br>The combustion chamber is dirty.<br>The flue exhaust pipe is blocked. | Check hermetic door closure.<br>Check hermetic closure of the ash drawer.<br>Check cleanliness of the fumes pipe, of the sensor in the primary air channel and the combustion chamber.                                                                                                             |
| <b>NO IGNITION</b>                                                                | The pellet feed-box is empty.<br>Pellet feed calibration inadequate.                                                                                  | Check for the presence of pellets in the feed-box.<br>Adjust pellet flow (see "Pellet feed adjustment").<br>Check the procedures described in the "Ignition" chapter.                                                                                                                              |
| <b>NO IGNITION BLACK OUT</b>                                                      | No current during the ignition phase.                                                                                                                 | Take the stove to OFF conditions using key 1 and repeat the procedure described in the "Ignition" chapter.                                                                                                                                                                                         |
| <b>NO PELLETS</b>                                                                 | The pellet feed-box is empty.<br>No pellet feed.<br>The motor reducer does not feed pellets.                                                          | Check for the presence of pellets in the feed-box.<br>Adjust the pellet flow (see "Pellet feed adjustment").                                                                                                                                                                                       |
| <b>DEPR ALARM</b>                                                                 | The door is not closed correctly.<br>The ash drawer is not closed correctly.<br>The combustion chamber is dirty.<br>The flue exhaust pipe is blocked  | Check hermetic door closure.<br>Check hermetic closure of the ash drawer.<br>Check cleanliness of the fumes pipe and the combustion chamber.                                                                                                                                                       |
| <b>DEBIMETER FAULT</b>                                                            | Flow sensor faulty.<br>Sensor disconnected                                                                                                            | Contact after-sales centre                                                                                                                                                                                                                                                                         |
| <b>H2O OVERTEMP</b>                                                               | Air in the system<br>Unsuitable circulation                                                                                                           | Possible air in the system, vent the system.<br>Lack of adequate circulation.<br>Lack of or inadequate safety zone.<br>The water in the stove has exceeded 95°C.<br>Possible circulator anomaly.<br>If the problem persists, the reset operations must be carried out by an authorised technician. |
| <b>TRAPDOOR FAULTY</b>                                                            | Door not closed properly<br>Burn pot dirty or clogged                                                                                                 | Check closure of the door.<br>Check that the burn pot is clear and clean.<br>The automatic burn pot cleaning is blocked.<br>If the problem persists contact the service centre                                                                                                                     |
| <b>ALARM MINIMUM PRESSURE</b>                                                     | The system pressure read by the pressure switch is too low.                                                                                           | Possible air in the system, vent the system.<br>Possible lack of water or leaks due to anomalies in some system component.<br>If the problem persists contact the service centre                                                                                                                   |
| <b>ALARM H2O PROBE</b>                                                            | H2O probe failure                                                                                                                                     | Contact after-sales centre                                                                                                                                                                                                                                                                         |
| <b>ALARM MAX H2O PRESSURE</b>                                                     | The pressure of the water has exceeded the max threshold                                                                                              | Possible air in the system, vent the system.<br>Check that the expansion vessels are not damaged or under-dimensioned<br>Check that the cold system is loaded at the correct pressure<br>If the problem persists contact the service centre                                                        |

## GUARANTEE TERMS

**1.** Extraflame S.p.A. products are guaranteed, within the European community, for 24 months from the date of purchase. Purchase has to be proved by means of a valid fiscal document issued by the seller (receipt, invoice or shipment document) identifying the purchased product and its purchase and/or delivery date.

**WARNING:** *This conventional guarantee does not replace the guarantee regulated by the European legislation on consumer rights.*

The conventional guarantee is only applicable to the Italian region and to those areas, within the European Community, where the Authorised Technical Assistance Centres are active (see the [www.lanordica-extraflame.com](http://www.lanordica-extraflame.com) website)

It is also limited to the state of residence of the consumer, which must coincide with the premises and/or registered office of the seller of the Extraflame S.p.A. product

These regulations do not apply if the product is purchased within commercial, entrepreneurial, or professional circumstances. In these cases the product guarantee will be limited to a period of 12 months from the date of purchase.

### ITALIAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. When requesting the intervention of the Assistance service at the Authorised Assistance Centre, always specify: - type of malfunction - model of the appliance - complete address - phone number

### EUROPEAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. Request the intervention of the Assistance service or the address of the Authorised Technical Assistance Centre to the seller; always specify: type of malfunction, model of the appliance, complete address and phone number

***If the malfunction arises in the first 6 months of the product's life, the consumer has the right to have the product repaired with no expense. From the seventh to the twenty-fourth month, if a malfunction arises, the consumer will bear the cost of the call, while the seller will pay for the manpower and for any spare parts used.***

**2.** If the malfunction is linked to external events and/or conditions such as, including but not limited to, insufficient capacity of the systems; wrong installation and/or maintenance by the personnel which hasn't got the skills prescribed by the laws of the country of residence of the consumer; negligence; inability to use the product and wrong maintenance by the consumer, with respect to what is reported and recommended by the instructions manual of the product, which is part of the sales contract, this guarantee will be void.

Damage to the product that cannot be related to manufacturing defects are also not included in this guarantee. Similarly are excluded defects related to incorrect operation of the flue, according to the legislation in force in the country at the moment of purchase. Other exclusions include all product defects due to carelessness, accidental breakdown, tampering and/or damage during transport (scratches, dents, etc.), interventions carried out by unauthorised personnel and further damage caused by incorrect interventions by the consumer trying to arrange the initial malfunction.

The following consumables are excluded by the guarantee: gaskets, ceramic or tempered glasses, cast iron grilles or coatings, refractory materials (e.g. Nordiker or others), painted, chrome-plated or golden parts, majolica ware, handles, the brazier and its related components. For Idro products the heat exchanger is not covered by the guarantee if a suitable condensation-proof circuit is not set up to ensure a return temperature of the device of at least 55°C. The guarantee excludes all the external components on which the consumer can directly operate during use and/or maintenance or that can be subject to wear and/or rust and stains on steel due to aggressive detergents.

If malfunctions are signalled which are not later confirmed during check by an authorised technician, the cost of the intervention will be borne entirely by the consumer.

**3.** If it is not possible to restore product conformity by repairing it, the product/component will be replaced, the guarantee expiration date and conditions will remain the same established when the product/component to be replaced has been purchased.

**4.** Extraflame S.p.A. cannot be held liable for injury or damage which may - either directly or indirectly - be caused to persons, animals and property ensuing from failure to observe all the instructions provided in the relevant instruction manual and the warnings regarding installation, use and maintenance of the product, that can also be downloaded on the website.

**5.** Interventions for adjusting and/or regulating the product for the type of fuel or other reasons are excluded by the guarantee.

**6.** If the product is repaired in one of the Authorised Technical Assistance Centres indicated by Extraflame S.p.A. and if the product is replaced, transport will be free of charge. If the technician can repair the product at the user's place of residence and they refuse, transport to the workshop and redelivery will be paid by the consumer.

**7.** After the 24 months of the guarantee have elapsed any repair intervention cost will be completely borne by the consumer.

**8.** In the case of disputes the only competent court is that of the Extraflame S.p.A. registered office - (Vicenza-Italy)

#### **ADDITIONAL WARNINGS**

- ♦ Only use the fuel recommended by the manufacturer. The product must not be used as an incinerator.
- ♦ Do not use the product as a ladder or supporting structure.
- ♦ Do not place laundry on the product to dry it. Any clothes-horse or similar objects must be kept at due distance from the product.

Danger of fire or damage to the coating.

- ♦ The user is fully liable for any incorrect use of the product. The manufacturer bears no civil or criminal liability for incorrect use.
- ♦ Unauthorised tampering of any nature or replacement of spare parts of the product with non-original parts may endanger the operator and the manufacturer bears no civil or criminal liability for this.
- ♦ Large parts of the surface of the product can get very hot (door, handle, glass, smoke outlet pipes, etc.). Please therefore avoid coming into contact with these parts without wearing suitable protective clothing or using appropriate measures, such as heat protective gloves.
- ♦ DO NOT use the product with the door open or if the glass is broken.
- ♦ The product must be electrically connected to a system equipped with an operational earthing system.
- ♦ Turn off the product in the event of a failure or malfunctioning.
- ♦ Unburned pellets that build up in the burner following each failed start-up must be removed before attempting to start up the product again. Make sure that the burner is clean and correctly positioned before starting it up again.
- ♦ Do not wash the product with water. Water may penetrate into the unit and cause faults in the electrical insulation. This can cause electric shocks.
- ♦ Installations not complying with the regulations in force, as well as incorrect use and failure to comply with the maintenance scheduled by the manufacturer, will invalidate the guarantee.

# **Extraflame**®

## Riscaldamento a Pellet

**EXTRAFLAME S.p.A.** Via Dell'Artigianato, 12 36030 - MONTECCHIO PRECALCINO (VI) - ITALY  
☎ +39.0445.865911 - 📠 +39.0445.865912 - ✉ info@extraflame.it - 🌐 www.lanordica-extraflame.com

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This manual cannot be considered as a contract for third parties.